

**PATENT**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
 (Case No. N02.2100)

In Re Application of:	Rajachandran, et al.	)	
		)	
		)	Examiner: Not Yet Assigned
Serial No. :	Not Yet Assigned	)	
		)	
Filed:	03/11/2005	)	Art Unit: Not Yet Assigned
		)	
For: Methods for Treating and Preventing		)	
Obesity in Patients with MC4 Receptor		)	
Mutations		)	

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

This information disclosure statement is filed under 37 C.F.R. §§1.97-1.98 in compliance with the duty of disclosure set forth in 37 C.F.R. §1.56.

In the judgment of the undersigned, the references listed on the attached Form PTO-1449 may be material to the Examiner's consideration of the presently pending claims. However, the references have not been reviewed in sufficient detail to make any other representation and no representation is intended as to the relative relevance among references, whether cited in this statement or prior statements. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. §102.

1. U.S. Patent No. 5,908,609, Lee et al., issued on June 1, 1999.
2. U.S. Patent No. 6,287,763, Lee et al., issued on September 11, 2001.
3. U.S. Patent No. 6,350,760, Bakshi et al., issued on February 26, 2002.
4. U.S. Patent No. 5,932,779, Lee et al., issued on August 3, 1999.
5. U.S. Patent Application Publication No. US 2003/0077701, published on April 24, 2003.

6. Gantz et al., The Journal of Biological Chemistry Vol. 268, 20:15174-15179 (1993).
7. Mergen et al., The Journal of Clinical Endocrinology & Metabolism Vol. 86, 7:3448—3451 (2001).
8. Ludwig et al., American Journal Physiol. 274:E627-633 (1998).
9. Benoit et al., The Journal of Neuroscience Vol. 20, 9:3442-3448 (2000).
10. Kask et al., Biochemical and Biophysical Research Communications 245:90-93 (1998).
11. Gu et al., Diabetes Vol. 48:635-639 (1999).
12. Hinney et al., The Journal of Clinical Endocrinology & Metabolism Vol. 84, 4:1483-1486 (1999).
13. Vaisse et al., The Journal of Clinical Investigation Vol. 106, 2:253-262 (2000).
14. Ho et al., The Journal of Biological Chemistry Vol. 257, 50:35816-35822 (1999).
15. Murray et al., Journal of Neuroendocrinology Vol. 12, 217-223 (2000).
16. Hinterman et al., Journal of Receptor & Signal Transduction Research 21(1), 93-116 (2001).
17. Hanada et al., Biochemical and Biophysical Research Communications, 268, 88-91 (2000).
18. Rosmond et al., Diabetologia 44:1335-1338 (2001).
19. Kobayashi et al., Diabetes Vol. 51, 1:235-246 (2002).
20. Dubern et al., The Journal of Pediatrics Vol. 139, 2:204-209 (2001).

In accordance with MPEP Sections 609 and 707.05(b), it is requested the documents cited be given thorough consideration, and that the documents be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider the cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

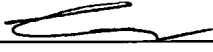
10/527675

2 Rec'd PCT/PTO 11 MAR 2005

The Commissioner is hereby authorized to charge any fee deficiencies or credit any overpayment to deposit account no. 501116.

Respectfully Submitted,  
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Phone: (203) 488-8201

3/11/2005  
Date

By:   
Ann Kadlecek  
Reg. No. 39,244

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use several sheets if necessary)		N02.2100	10/527675
		<b>Applicant:</b> Lavanya Rajachandran, et al.	
		<b>Filing Date:</b> 03/11/2005	<b>Group:</b>

## U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1	5,908,609	06/01/1999	Lee et al.	424, 435, 530		06/10/1996
	2	6,287,763	09/11/2001	Lee et al.	435,536		06/06/1997

## FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

Examiner Initial		
	1	Gantz et al., "Molecular Cloning, Expression, and Gene Localization of a Fourth Melanocortin Receptor," The Journal of Biological Chemistry Vol. 268, No. 20:15174-15179 (1993)
	2	Mergen et al., "A Novel Melanocortin 4 Receptor (MC4R) Gene Mutation Associated with Morbid Obesity," The Journal of Clinical Endocrinology & Metabolism Vol. 86, No. 7:3448-3451 (2001)
	3	Ludwig et al., "Melanin-concentrating hormone: a functional melanocortin antagonist in the hypothalamus," Am. J. Physiol. 274:E627-33 (1998)
	4	Benoit et al., "A Novel Selective Melanocortin-4 Receptor Agonist Reduces Food Intake in Rats and Mice without Producing Aversive Consequences," The Journal of Neuroscience Vol. 20, No. 9:3442-3448 (2000)
	5	Kask et al., "Selective Antagonist for the Melanocortin 4 Receptor (HS014) Increases Food Intake in Free-Feeding Rats," Biochemical and Biophysical Research Communications 245:90-93 (1998)
	6	Gu et al., "Identification and Functional Analysis of Novel Human Melanocortin-4 Receptor Variants," Diabetes Vol. 48:635-639 (1999)
	7	Hinney et al., "Several Mutations in the Melanocortin-4 Receptor Gene Including a Nonsense and a Frameshift Mutation Associated with Dominantly Inherited Obesity in Humans," The Journal of Clinical Endocrinology & Metabolism Vol. 84, No. 4:1483-1486 (1999)

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of hits form with next communication.

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<b>FORM PTO-1449</b> <b>(Rev. 2-32)</b>  <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>  <b>INFORMATION DISCLOSURE</b> <b>STATEMENT BY APPLICANT</b>  (Use several sheets if necessary)	<b>Atty. Docket No.</b> N02.2100	<b>Serial No.</b> 10/527675
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	3	6,350,760	02/26/2002	Bakshi et al.	514, 540, 546		06/01/2000

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	8	Vaisse et al., "Melanocortin-4 Receptor Mutations are a Frequent and Heterogeneous Cause of Morbid Obesity," The Journal of Clinical Investigation Vol. 106, No. 2:253-262 (2000)
	9	Ho et al., "Functional Characterization of Mutations in Melanocortin-4 Receptor Associated with Human Obesity," The Journal of Biological Chemistry Vol. 257, No. 50:35816-35822 (1999)
	10	Murray et al., "Melanin-Concentrating Hormone, Melanocortin Receptors and Regulation of Luteinizing Hormone Release," Journal of Neuroendocrinology Vol. 12, 217-223 (2000)
	11	Hinterman et al., "Interaction of Melanin-Concentrating Hormone (MCH), Neuropeptide E-I (NEI), Neuropeptide G-E (NGE), and alpha-MSH with Melanocortin and MCH Receptors on Mouse B16 Melanoma cells," Journal of Receptor & Signal Transduction Research, 21(1), 93-116 (2001)
	12	Hanada et al., "Differential Regulation of Melanin-Concentrating Hormone and Orexin Genes in the Agouti-Related Protein/Melanocortin-4 Receptor System," Biochemical and Biophysical Research Communications, 268, 88-91 (2000)
	13	Rosmond et al., "A Missense Mutation in the Human Melanocortin-4 Receptor Gene in Relation to Abdominal Obesity and Salivary Cortisol," Diabetologia 44:1335-1338 (2001)

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	4	5,932,779	8/03/1999	Lee et al.	435		1/08/1997
	5	US2003/0077701	4/24/2003	Forray et al.	435, 530,536		12/20/2001

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	14	Kobayashi et al., "A Novel Homozygous Missense Mutation of Melanocortin-4 Receptor (MC4R) in a Japanese Woman with Sever Obesity," Diabetes Vol. 51 No. 1:235-246 (2002)
	15	Dubern et al., "Mutational Analysis of Melanocortin-4 Receptor, Agouti-Related Protein, and alpha-Melanocyte-Stimulating Hormone Genes in Severely Obese Children," The Journal of Pediatrics Vol. 139 No. 2: 204-209 (2001)

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